

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) A method for estimating ~~the~~ at least a laminar structure ~~and other characteristics of [[a]] ground which comprises~~ , said method comprising:
~~disposing an~~ positioning a plurality of microseismic oscillation sensor
~~adapted to detect the~~ wave sensors, for detecting one of a vertical component [[or]]
; and both the vertical and a horizontal ~~components~~ component of microseismic
oscillations , at a plurality of measurement points, such that there is a sensor at
each of at least 3 measurement points within a comparatively small an area at
ground level, to simultaneously measure microseisms at such plural measurement
points [[,]] to obtain data, including one of vertical oscillation data, and both
vertical and horizontal oscillation data, generated by said microseismic oscillations;
if necessary changing the locations of said ~~points of measurement and~~
points; repeating the measurements [[,]] ; and
analyzing the vertical oscillation data or vertical and horizontal obtained
oscillation data.

2. (Currently Amended) [[A]] ~~The method for estimating the laminar structure and other characteristics of a ground~~ according to claim 1, wherein said microseisms to be measured are short-period microseisms observed at ground level.

3. (Currently Amended) [[A]] ~~The~~ method according to claim 1, wherein two ~~oscillation~~ sensors are disposed on each of ~~2 or more~~ at least two straight lines passing through the ground to be measured, and ~~dividing the azimuth of 360 degrees~~ a 360 degree azimuth is divided into an even-number of equal sections or straight lines ~~parallel~~ parallel thereto [[in]] such [[a manner]] that sensor-to-sensor distances are equal on said straight lines.

4. (Currently Amended) [[A]] ~~The~~ method according to claim 1, wherein said ~~oscillation~~ sensors are ~~disposed~~ positioned at ~~3 or more~~ at least a total of four points, including at least three points at ~~equal~~ equal spacings on [[the]] a circumference of a circle, and at one point [[in the]] at a geometric center of the circle [[, or at a total of at least 4 points]].

5. (Currently Amended) [[A]] ~~The~~ method according to claim 1, wherein said ~~oscillation~~ sensors are ~~disposed~~ positioned at at least a total of four points,

including at apices of a regular triangle, ~~and the center of gravity thereof or a total of 4 points~~ at a geometric center of said triangle.

6. (Currently Amended) [[A]] The method [[for estimating the laminar structure and characteristics of a ground]] according to any of claims 1 to 6 ~~which comprises~~ 5, further comprising:

analyzing one of vertical oscillation data [[or] and both vertical and horizontal oscillation data, as measured simultaneously with said ~~oscillation~~ sensors [[,]] ;

~~judging~~ determining whether the microseismic oscillation waves detected by said ~~oscillation~~ sensors are, or are not, surface waves ~~or not,~~ ; and

extracting and analyzing the surface waves.

7. (Currently Amended) [[A]] The method ~~for estimating the laminar structure and characteristics of a ground~~ according to any of claims 1 to 6, ~~which comprises~~ further comprising:

analyzing [[the]] a correlation coefficient and phase difference of oscillation data, as measured by [[equi-]] equally spaced ~~oscillation~~ sensors for each frequency;

performing ~~the analysis repeatedly with~~ repeated analyses at varying
sensor-to-sensor distances ~~varied~~; ;

analyzing and computing ~~[[the]]~~ a fundamental mode of surface waves,
based on results of the respective analyses; and ~~[[, if necessary,]]~~

analyzing and computing ~~[[the]]~~ higher-mode wave-lengths.

8. (Currently Amended) ~~[[A]]~~ The method for estimating the laminar structure and
~~characteristics of a ground~~ according to any of claims 1 to 7 ~~which comprises~~ ,
further comprising repeatedly performing ~~[[the]]~~ measurement and analysis of
microseisms ~~repeatedly until it can be concluded that~~ existence of a relation
between phase velocity and wavelength is alternatively established or refuted, such
~~as to give a sufficiently~~ that when a relation is established therebetween, an
inference of an accurate assessment of ground structure ~~is achieved~~ can be made.